

E44007 aptotoxin III - trap-door spider (*Aptostichus* sp.)

N;Alternate names: insecticidal peptid Aps III

C;Species: *Aptostichus* sp.

C;Date: 20-Aug-1999 #sequence_revision 20-Aug-1999

C;Accession: E44007

R;Skinner, W.S.; Dennis, P.A.; Li, J.P.; Quistad, G.B.

Toxicol 30, 1043-1050, 1992

A;Title: Identification of insecticidal peptides from venom of the trap-door spider, Apt

A;Reference number: A44007; MUID:93069259

A;Accession: E44007

A;Molecule type: protein

A;Residues: 1-37 <SKT>

A;Cross-references: PIDN:AB24051;1; PID:9259281

A;Note: the source is designated as *Aptostichus schlingeri*

C;Keywords: disulfide bond; toxin; venom

Query Match 100.0%; Score 53; DB 2; length 40;
Best Local Similarity 19.0%; Pred. No. 1.5e+02;
Matches 4; Conservative 17; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CXXXCXXXXXXXXXXXXCXXXC 21
|::|::|::|::|::|::|::|::|::|

Db 15 CGGKAYNWNCIGGCSKTC 35
|::|::|::|::|::|::|::|::|::|

RESULT 3
IZWS
cygnin - black swan

C;Species: *Cygnus atratus* (black swan)

C;Date: 18-Apr-198 #sequence_revision 28-Feb-1986 #text_change 24-Nov-1999

C;Accession: A43258

R;Simpson, R.J.; Morgan, F.J.

submitted to the Atlas, November 1982

A;Reference number: A94600

A;Accession: A43258

A;Molecule type: protein

A;Residues: 1-59 <SIM>

C;Comment: Cygnin shows some similarity to the amino-terminal fragment of the carboxyl-t

C;Superfamily: cygnin

C;Keywords: blocked amino end; egg white

F;1/Modified site: blocked amino end (Gln) (probably pyrrolidine carboxylic acid) #status

Query Match 100.0%; Score 53; DB 1; Length 39;
Best Local Similarity 19.0%; Pred. No. 1.4e+02;

Matches 4; Conservative 17; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CXXXCXXXXXXXXXXXXCXXXC 21
|::|::|::|::|::|::|::|::|::|

Db 12 CSSKCSKAEVWVAYSPDCKVHC 32
|::|::|::|::|::|::|::|::|::|

RESULT 4
JX0010
meleagrin - turkey

N;Alternate names: cygnin homolog

C;Species: *Meleagris gallopavo* (common turkey)

C;Accession: JX0010

R;Odani, S.; Koide, T.; Ono, T.; Takahashi, Y.; Suzuki, J.

J. Biochem. 105, 660-663, 1989

A;Title: Covalent structure of a low-molecular-mass protein, meleagrin, present in a tur

A;Reference number: JX0010; MUID:89340398

A;Accession: JX0010

A;Molecule type: protein

A;Residues: 1-40 <ODA>

C;Superfamily: cygnin

C;Keywords: egg white; pyroglutamic acid

F;1/Modified site: pyrrolidine carboxylic acid (Gln) #status experimental

F;1/2-28/Disulfide bonds: #status experimental

Query Match 100.0%; Score 53; DB 2; length 40;

Best Local Similarity 19.0%; Pred. No. 1.5e+02;

Matches 4; Conservative 17; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CXXXCXXXXXXXXXXXXCXXXC 21
|::|::|::|::|::|::|::|::|::|

Db 12 CSSKCSKAEVWVAYSPDCKVHC 32
|::|::|::|::|::|::|::|::|::|

RESULT 5
S25774

testis-specific protein Mst84Dc - fruit fly (*Drosophila melanogaster*)

C;Species: *Drosophila melanogaster*

C;Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 20-Aug-1999

C;Accession: S25774; C56505

R;Kuhn, R.; Boersch, D.; Glaerzer, K.H.; Schaefer, U.; Schaefer, M.

Mech. Dev. 35, 143-151, 1991

A;Title: A cluster of four genes selectively expressed in the male germ line of Droso

A;Reference number: A56555; MUID:92102953

A;Accession: S25774

A;Molecule type: DNA

A;Residues: 1-55 <KHF>

A;Cross-references: EMBL:X67703; MUID:911072; PIDN:CAA47939;1; PID:911075

A;Note: the authors translated the codon TGC for residue 55 as Thr

C;Keywords: spermatoogenesis; tandem repeat

A;Gene: Mst84Dc

A;Cross-references: FlyBase:FBgn0004174

A;Map position: 3

C;Superfamily: fruit fly testis-specific protein

C;Keywords: spermatogenesis; tandem repeat

Query Match 100.0%; Score 53; DB 2; length 55;

Best Local Similarity 19.0%; Pred. No. 1.7e+02;

Matches 4; Conservative 17; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CXXXCXXXXXXXXXXXXCXXXC 21
|::|::|::|::|::|::|::|::|::|

Db 2 CGCGCGCCGCGCCGCCGC 22
|::|::|::|::|::|::|::|::|::|

RESULT 6
SMKD2S

metallothionein 2 - mud crab

C;Species: *Scylla serrata* (mud crab)

C;Accession: JX03284

R;Lerch, K.; Ammer, D.; Olafson, R.W.

J. Biol. Chem. 257, 2420-2426, 1982

A;Title: Crab metallothionein. Primary structures of metallothioneins 1 and 2.

A;Reference number: A92333; MUID:82142240

A;Accession: A03284

A;Molecule type: protein

A;Residues: 1-57 <ER>

C;Superfamily: metallothionein

C;Keywords: metal binding

Query Match 100.0%; Score 53; DB 1; Length 57;

Best Local Similarity 19.0%; Pred. No. 1.8e+02;

Matches 4; Conservative 17; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CXXXCXXXXXXXXXXXXCXXXC 21
|::|::|::|::|::|::|::|::|::|

Db 33 CSGGCKCANKEDKRKICSKPC 53
|::|::|::|::|::|::|::|::|::|

RESULT 7
S59073

metallothionein isoform IIIA - blue crab

C;Species: *Callinectes sapidus* (blue crab)

C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 07-May-1999

A;Accession: S59073

R;Brouwer, M.; Engblad, J.; Hoeksma-Brouwer, T.; Thøgersen, I.; Truncali, A.

Biochem. J. 311, 617-622, 1995

A;Title: Primary structure and tissue-specific expression of blue crab (*Callinectes sapidus*) metallothionein isoform IIIA - blue crab

A;Reference number: S59072; MUID:96033062

A;Accession: S59073

A;Molecule type: protein

A;Residues: 1-57 <BRO>

C;Superfamily: metallothionein

C;Keywords: metal binding

Query Match 100.0%; Score 53; DB 2; Length 57;

Best Local Similarity 19.0%; Pred. No. 1.8e+02; Matches 4; Conservative 17; Mismatches 0; Indels 0; Gaps 0;

RESULT 8

SMKDS

metallothionein 1 - mud crab

C;Species: *Scylla serrata* (mud crab)

C;Date: 29-Jul-1981 #sequence_revision 29-Jul-1981 #text_change 13-Sep-1996

C;Accession: A03203

R;Lerch, K.; Ammer, D.; Olafson, R.W.

J. Biol. Chem. 257, 2420-2426, 1982

A;Title: Crab metallothionein. Primary structures of metallothioneins 1 and 2.

A;Reference number: A92363; MUID:82142340

A;Accession: A03203

A;Molecule type: protein

A;Residues: 1-58 <LER>

A;Note: the five Cys-X-Cys sequences are believed to be the principal metal-binding site

C;Superfamily: metallothionein

C;Keywords: metal binding

Query Match 100.0%; Score 53; DB 1; Length 58;

Best Local Similarity 19.0%; Pred. No. 1.8e+02; Matches 4; Conservative 17; Mismatches 0; Indels 0; Gaps 0;

RESULT 9

S59072

metallothionein isoform Ia - blue crab

C;Species: *Callinectes sapidus* (blue crab)

C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 07-May-1999

C;Accession: S59072

R;Brouwer, M.; Engblad, J.; Hoeksma-Brouwer, T.; Thøgersen, I.; Truncali, A.

A;Title: Primary structure and tissue-specific expression of blue crab (*Callinectes sapi*

A;Reference number: S59072; MUID:96033062

A;Accession: S59072

A;Molecule type: Protein

A;Residues: 1-58 <BRO>

C;Superfamily: metallothionein

C;Keywords: metal binding

Query Match 100.0%; Score 53; DB 2; Length 58;

Best Local Similarity 19.0%; Pred. No. 1.8e+02; Matches 4; Conservative 17; Mismatches 0; Indels 0; Gaps 0;

RESULT 12

S59772

testis-specific protein Mst84Da - fruit fly (*Drosophila melanogaster*)

C;Species: *Drosophila melanogaster*

C;Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 20-Aug-1999

C;Accession: S25772; A56555

R;Kuhn, R.; Kuhn, C.; Boersch, D.; Glaetter, K.H.; Schaefer, U.; Schaefer, M.

Mech. Dev. 35, 143-151, 1991

A;Title: A cluster of four genes selectively expressed in the male germ line of Droso

A;Reference number: S25772

A;Accession: S25772

A;Molecule type: DNA

A;Residues: 1-63 <KU1>

A;Cross-references: EMBL:867703; NID:911072; PIDN:CAA47937.1; PID:911073

Db 33 CTSGCKCATKRCRCSKTCRCP 53

RESULT 10

A37039

metallothionein 1 - American lobster

C;Species: *Homarus americanus* (American lobster)

C;Date: 31-Jan-1992 #sequence_revision 31-Jan-1992 #text_change 12-Apr-1995

C;Accession: A37039

R;Brouwer, M.; Winge, D.R.; Gray, W.R.

J. Inorg. Biochem. 35, 289-303, 1989

A;Title: Structural and functional diversity of copper-m metallothioneins from the Amer

A;Reference number: A37039; MUID:89215793

A;Status: preliminary

A;Accession: A37039

A;Molecule type: protein

A;Residues: 1-58 <BRO>

C;superfamily: metallothionein

C;Keywords: metallothionein

Query Match 100.0%; Score 53; DB 2; Length 58;

Best Local Similarity 19.0%; Pred. No. 1.8e+02; Matches 4; Conservative 17; Mismatches 0; Indels 0; Gaps 0;

RESULT 11

S83367

metallothionein - green crab

C;Species: *Carcinus maenas* (green crab, common shore crab)

C;Date: 19-Mar-1997 #sequence_revision 01-Feb-1999 #text_change 07-May-1999

C;Accession: S43367

R;Pedersen, K.L.; Pedersen, S.N.; Hojrup, P.; Andersen, J.S.; Roepstorff, P.; Knudsen

A;Title: Purification and characterization of a cadmium-induced metallothionein from

A;Reference number: S43367; MUID:94153337

A;Accession: S43367

A;Molecule type: protein

A;Residues: 1-58 <PEP>

A;Note: the sequence from Fig. 4 is inconsistent with that from Fig. 6 in having an a

C;Superfamily: metallothionein

C;Keywords: metal binding; cheation; metal-thiolate cluster

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

A;Reference number: S43367

A;Accession: S43367

A;Molecule type: protein

A;Residues: 1-58 <PEP>

A;Note: the sequence from Fig. 4 is inconsistent with that from Fig. 6 in having an a

C;Superfamily: metallothionein

C;Keywords: metal binding; cheation; metal-thiolate cluster

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

A;Reference number: S43367

A;Accession: S43367

A;Molecule type: protein

A;Residues: 1-58 <PEP>

A;Note: the sequence from Fig. 4 is inconsistent with that from Fig. 6 in having an a

C;Superfamily: metallothionein

C;Keywords: metal binding; cheation; metal-thiolate cluster

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

A;Reference number: S43367

A;Accession: S43367

A;Molecule type: protein

A;Residues: 1-58 <PEP>

A;Note: the sequence from Fig. 4 is inconsistent with that from Fig. 6 in having an a

C;Superfamily: metallothionein

C;Keywords: metal binding; cheation; metal-thiolate cluster

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

A;Reference number: S43367

A;Accession: S43367

A;Molecule type: protein

A;Residues: 1-58 <PEP>

A;Note: the sequence from Fig. 4 is inconsistent with that from Fig. 6 in having an a

C;Superfamily: metallothionein

C;Keywords: metal binding; cheation; metal-thiolate cluster

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

A;Reference number: S43367

A;Accession: S43367

A;Molecule type: protein

A;Residues: 1-58 <PEP>

A;Note: the sequence from Fig. 4 is inconsistent with that from Fig. 6 in having an a

C;Superfamily: metallothionein

C;Keywords: metal binding; cheation; metal-thiolate cluster

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

A;Reference number: S43367

A;Accession: S43367

A;Molecule type: protein

A;Residues: 1-58 <PEP>

A;Note: the sequence from Fig. 4 is inconsistent with that from Fig. 6 in having an a

C;Superfamily: metallothionein

C;Keywords: metal binding; cheation; metal-thiolate cluster

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

A;Reference number: S43367

A;Accession: S43367

A;Molecule type: protein

A;Residues: 1-58 <PEP>

A;Note: the sequence from Fig. 4 is inconsistent with that from Fig. 6 in having an a

C;Superfamily: metallothionein

C;Keywords: metal binding; cheation; metal-thiolate cluster

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

A;Reference number: S43367

A;Accession: S43367

A;Molecule type: protein

A;Residues: 1-58 <PEP>

A;Note: the sequence from Fig. 4 is inconsistent with that from Fig. 6 in having an a

C;Superfamily: metallothionein

C;Keywords: metal binding; cheation; metal-thiolate cluster

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

A;Reference number: S43367

A;Accession: S43367

A;Molecule type: protein

A;Residues: 1-58 <PEP>

A;Note: the sequence from Fig. 4 is inconsistent with that from Fig. 6 in having an a

C;Superfamily: metallothionein

C;Keywords: metal binding; cheation; metal-thiolate cluster

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

A;Reference number: S43367

A;Accession: S43367

A;Molecule type: protein

A;Residues: 1-58 <PEP>

A;Note: the sequence from Fig. 4 is inconsistent with that from Fig. 6 in having an a

C;Superfamily: metallothionein

C;Keywords: metal binding; cheation; metal-thiolate cluster

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

A;Reference number: S43367

A;Accession: S43367

A;Molecule type: protein

A;Residues: 1-58 <PEP>

A;Note: the sequence from Fig. 4 is inconsistent with that from Fig. 6 in having an a

C;Superfamily: metallothionein

C;Keywords: metal binding; cheation; metal-thiolate cluster

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

A;Reference number: S43367

A;Accession: S43367

A;Molecule type: protein

A;Residues: 1-58 <PEP>

A;Note: the sequence from Fig. 4 is inconsistent with that from Fig. 6 in having an a

C;Superfamily: metallothionein

C;Keywords: metal binding; cheation; metal-thiolate cluster

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

A;Reference number: S43367

A;Accession: S43367

A;Molecule type: protein

A;Residues: 1-58 <PEP>

A;Note: the sequence from Fig. 4 is inconsistent with that from Fig. 6 in having an a

C;Superfamily: metallothionein

C;Keywords: metal binding; cheation; metal-thiolate cluster

F;31,38,46,47,54,56,57/Binding site: transition metal ions (CYS) #status predicted

A;Note: sequence extracted from NCBI backbone (NCBIN:74219, NCBIP:74224)
C;Genetics:
A;Gene: Mst84Da
A;Cross-references: FlyBase:FBgn0004172
A;Map position: 3
A;Intron: 1/3
C;Superfamily: fruit fly testis-specific protein
C;Keywords: spermatogenesis; tandem repeat

Query Match 100.0%; Score 53; DB 2; Length 63;
Best Local Similarity 19.0%; Pred. No. 1.9e+02;
Matches 4; Conservative 17; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CXXCXXXXXXXXXXXXCXXXC 21
Db 16 CCOPCGGGCGGCCGCGGC 36

RESULT 13

A24484 metallothionein I - yeast (Candida glabrata)

C;Species: Candida glabrata
C;Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text_change 20-Aug-1999
C;Accession: A34484
R;Mehra, R.K.; Garey, J.R.; Butt, T.R.; Gray, W.R.; Winge, D.R.
J. Biol. Chem. 264, 19747-19753, 1989
A;Title: Candida glabrata metallothioneins. Cloning and sequence of the genes and characterisation of the proteins
A;Reference number: R92737; MUID:90062075
A;Accession: A34484
A;Molecule type: DNA
A;Residues: 1-63 <MEH>
A;Cross-references: GB:J05133; NID:9173321; PIDN:AAA35272; 1; PID:9173322
A;Note: the authors translated the codon GAG for residue 61 as Asp
C;superfamily: metallothionein

Query Match 100.0%; Score 53; DB 2; Length 63;
Best Local Similarity 19.0%; Pred. No. 1.9e+02;
Matches 4; Conservative 17; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CXXXCCCCCCCCCCCCCXXXC 21
Db 7 CPNGCSCPNCANGCQCGDKC 27

RESULT 14

T8117 hypothetical protein ab15R - Chlorella virus PBCV-1

C;Species: Chlorella virus PBCV-1
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 15-Oct-1999
C;Accession: T8117
R;Graves, M.V.; Van Etten, J.L.
submitted to the EMBL Data Library, May 1999
A;Reference number: Z18806
A;Accession: T18117
A;Status: preliminary; translated from GB/EMBL/DDJB
A;Molecule type: DNA
A;Residues: 1-66 <GRA>
A;Cross-references: EMBL:U42580; NID:94028896; PIDN: AAC97026.1
A;Experimental source: specific host Chlorella strain NC64A
A;Note: ab15R

Query Match 100.0%; Score 53; DB 2; Length 66;
Best Local Similarity 19.0%; Pred. No. 1.9e+02;
Matches 4; Conservative 17; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CXXCXXXXXXXXXXXXCXXXC 21
Db 28 CLGTCGLTGLRLGTCIGTC 48

RESULT 15

S25775 testis-specific protein Mst84Dd - fruit fly (Drosophila melanogaster)

C;Species: Drosophila melanogaster
C;Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 20-Aug-1999
C;Accession: S25775; DS6565
R;Kuhn, R.; Kuhn, C.; Boersch, D.; Glaetzer, K.H.; Schaefer, U.; Schaefer, M.
Mech. Dev. 35, 143-151, 1991
A;Title: A cluster of four genes selectively expressed in the male germ line of Drosophila
A;Reference number: A56565; MUID:92102953
A;Accession: S25775
A;Molecule type: DNA
A;Residues: 1-68 <KUH>
A;Cross-references: EMBL:X67703; NID:911072; PIDN:CAA47940.1; PID:911076
A;Note: sequence extracted from NCBI backbone (NCBIN:74217, NCBIP:74223)
C;Genetics:
A;Gene: Mst84Dd
A;Cross-references: FlyBase:FBgn0004175
A;Map position: 3
C;Superfamily: spermatogenesis; tandem repeat

Search completed: March 1, 2001, 16:20:13
Job time: 321 sec